



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/630,033

07/30/2003

John Alex Leonard

EPE 2 0012-2

7769

27885

7590

08/16/2005

FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP  
1100 SUPERIOR AVENUE, SEVENTH FLOOR  
CLEVELAND, OH 44114

EXAMINER

MENON, KRISHNAN S

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/630,033

Applicant(s)

LEONARD ET AL.

Examiner

Krishnan S. Menon

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                                   |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

Claims 16-25 are pending after the preliminary amendment of 7/30/03

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 recites 'vapor permeable membrane is a nanostructure'. The claim is indefinite because the nanostructure is not defined in the claim or the specification. For examination purpose, examiner assumes the nanostructure to represent the pore-size of the membrane, as in 'nano-porous'. Disclosure of the nano-porous filter is found in page 10 line 9.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1723

1. Claims 16,18-20 and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternate, under 35 USC 103(a) as obvious over O'Dowd (US 5,275,736).

Claim 16: claim language 'where desired' and 'where required' are considered to represent optional features, and therefore, do not further limit the claims.

Claim limitations recited a "suitable means of .... (controlled flow, supplying agitation, heating or cooling, controlling pressure, removing measured volume, etc.)" represent means-plus-function language, and therefore, invoke 35 USC 112, 6<sup>th</sup> paragraph. An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. Since the specification does not provide any specific structure of description for these means-plus-function language, they are given the broadest reasonable interpretation. See *Kemco Sales, Inc. v. Control Papers Company, Inc.*, 208 F.3d 1352, 54 USPQ2d 1308 (Fed. Cir. 2000), and MPEP 2181.

O'Dowd teaches a device for producing iodine solution comprising an iodine vapor permeable membrane (20-figure 2, 12-figure 3,39 and 42-figure 4; column 4 line 66 – column 5 line 69) in the form of a pouch, iodine source in the pouch, an iodine receiving medium (water), a vessel (10 or 32), means for applying agitation (shaking, for example), and means for removing measured volume (cup or container 10 or 30). With re to sealing the pouch, this is a product by process limitation: "[E]ven though product-

Art Unit: 1723

by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re *Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Claim 18: membrane is single ply in figure 2 and 3

Claim 19: multiply construction with different material and structure for the membrane (cup wall 31 with barrier 39 in figure 4: see column 5 lines 60-69; pouch formed between the container 32 and the barrier 39).

Claim 20: continuous film – 12 figure 3 or 20-figure 2.

Claim 23: perforated: figure 4: the membrane (or barrier 31+39; pouch formed between the container 32 and barrier 39) of O'Dowd has perforations 42.

Claim 24: membrane material is non-permeable to solid iodine – column 3 lines 28-38 and column 4 lines 6-16: iodine is implied as transmitted in the vapor phase.

Claim 25: device can produce controlled iodine solution to any strength up to saturation – column 4 lines 30-36.

2. Claims 16, 17 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Vermes et al (US 5,273,650).

Claim 16: claim language, 'where desired' and 'where required' are considered to represent optional structures, and therefore, do not further limit the claims.

Claim limitations recited a "suitable means of .... (controlled flow, supplying agitation, heating or cooling, controlling pressure, removing measured volume, etc.)" represent means-plus-function language, and therefore, invoke 35 USC 112, 6<sup>th</sup> paragraph. An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. Since the specification does not provide any specific structure of description for these means-plus-function language, they are afforded the broadest reasonable interpretation. See *Kemco Sales, Inc. v. Control Papers Company, Inc.*, 208 F.3d 1352, 54 USPQ2d 1308 (Fed. Cir. 2000), and MPEP 2181.

Vermes teaches a device for producing iodine solution comprising an iodine vapor permeable membrane (26 and 40-figure 2; column 2 lines 32-61) in the form of a pouch (sealed cartridge –figure 3; sealed with adhesive – column 2 lines 55-60), iodine source in the pouch (iodinated resin 34, an iodine receiving medium (water), a vessel (10 ), means for applying agitation (by flow of water through the filter), and means for removing measured volume (faucet: column 2 line 26).

Claim 17: membrane is inorganic material – ceramic materials 26 and 40: column 2 lines 32-41.

Claim 23: disc 40 and the ceramic filter 26 are porous or perforated.

Art Unit: 1723

3. Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternate, under 35 USC 103(a) as obvious over Blaney et al (US 5,662,808).

Claim 16: claim language, 'where desired' and 'where required' are considered to represent optional structures, and therefore, do not further limit the claims.

Claim limitations recited a "suitable means of .... (controlled flow, supplying agitation, heating or cooling, controlling pressure, removing measured volume, etc.)" represent means-plus-function language, and therefore, invoke 35 USC 112, 6<sup>th</sup> paragraph. An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. Since the specification does not provide any specific structure of description for these means-plus-function language, they are afforded the broadest reasonable interpretation. See *Kemco Sales, Inc. v. Control Papers Company, Inc.*, 208 F.3d 1352, 54 USPQ2d 1308 (Fed. Cir. 2000), and MPEP 2181.

Blaney teaches a device for producing iodine solution comprising an iodine vapor permeable membrane (column 4 line 62-column 5 line 3; column 7 lines 1-36; iodine is the disinfectant – column 3 lines 64-66) in the form of a pouch (figure 3,4), iodine source in the pouch, means for applying agitation (column 7 lines 10-17), and means for removing measured volume (container 12). With re to sealing the pouch, this is a product by process limitation: In re Thorpe.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 18,19,21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blaney'808 as applied to claim 16 above and further in view of Adam et al (US 5,573,841).

Blaney teaches the limitations of claim 16, but is deficient in the details of the structure of the membrane used for the pouch as recited by the instant claims. Adam et al teaches the non-woven membrane material for the pouch – see abstract. It is a single or multi-ply (abstract; for multi-ply – see comparative examples – commercially available infusion package material at column 14). The non-woven is inherently nano or microporous. It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Adam et al in the teaching of Blaney because Blaney does not specify the material for the pouch, other than stating that it is like a tea bag, and also because Adam teaches the strong and autogenously heat-sealable material for making infusion bags (tea bags) – see column 1 lines 13-35.

***Conclusion***



Art Unit: 1723

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'KS Menon', with a stylized, cursive script.

Krishnan S. Menon  
Patent Examiner  
8/12/05